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ANNUAL REPORT
OF THE
COCHITUATE WATER BOARD
FOR
1858.

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R E P O R T

OF THE

COCHITUATE WATER BOARD

TO THE

CITY COUNCIL OF BOSTON,

FOR THE YEAR 1858.



B O S T O N :

GEO. C. RAND & AVERY, CITY PRINTERS,

No. 3, CORNHILL.

1859.

CITY OF BOSTON.

In Common Council, Jan. 6, 1859.

ORDERED: That the Cochituate Water Board have leave to make their Annual Report in print.

Sent up for concurrence.

J. P. BRADLEE, *President.*

In Board of Aldermen, Jan. 10, 1859.

Concurred.

SILAS PEIRCE, *Chairman.*

Approved. Jan. 12, 1859.

F. W. LINCOLN, JR., *Mayor.*

A true copy. Attest,

S. F. McCLEARY, *City Clerk.*

R E P O R T .

OFFICE OF THE COCHITUATE WATER BOARD,
BOSTON, *January* 15, 1859.

TO THE CITY COUNCIL.

The Cochituate Water Board respectfully submit to the City Council their Annual Report for the year 1858. In compliance, also, with the City Ordinance, they submit the Reports of the City Engineer, the Water Registrar, and the Clerk of this Board — all of which contain valuable information for those who wish to keep well informed upon matters relating to the Water Works.

It is believed that the Water Works were never in a more safe and efficient condition.

The past season has been deemed to be a favorable one to make sales of such property appurtenant to the Water Works, as was not needed for practical use. The Board have sold to Mr. Amory Maynard, the Marlborough Reservoir, and all the land and privileges belonging to the city and lying in said Marlborough, for the sum of \$8,000 — \$2,000 down, and the balance on a credit of five years, with interest semi-annually. The cost to the city of this property in the gross was near \$40,000; but it was acquired under great disadvantages, and it was subject to the cost of keeping in repair extensive causeways passing over or near the same; so that, upon very full consideration of the matter, it was

deemed advisable to accept the offer of Mr. Maynard in preference to retaining the property for a better offer, or to risk the sale of it at auction. As all this property was conveyed to the city by Mr. Maynard, who acted in behalf of the city in its purchase, (excepting what he owned before,) the city gives only a quit claim deed.

The Board have also sold at auction during the last year, a number of lots lying in Framingham and Natick, among which is the Upper Mill privilege. This privilege, with the factory and houses on the land appurtenant, sold for a little over \$2,000; and the whole amount of the sales came to \$3,811.75. Ample rights were reserved to the city for flowage and for passage over lands to the Works. Wood also has been sold to the amount of \$500.

Two years ago this Board reported that it had leased the Reservoir at Hopkinton for ten years, at \$1,250 per annum, and taxes, with power to terminate the lease on the part of the city, by forfeiting one year's rent. Two parties signed the lease, upon the verbal promise of several others to pay certain specific proportions. When the severe pressure came upon the community, one of the parties to the lease and one or more of the verbal promisors became bankrupt, and other promisors refused to pay their portion of rent.

In these circumstances, the remaining party to the lease urged upon the Board the equity of a compromise upon the terms of the lease; and the Board, knowing all the facts in the case, thought it would be equitable to compromise for \$625 per annum, and all taxes, with the privilege on the part of the city to ter-

minate the lease at any time, on giving three months notice. And the lease was altered accordingly.

During the last summer the proprietors of Sudbury Meadows memorialized the City of Boston for damage done to their property by letting down water from the Reservoirs at unseasonable times. That memorial has been referred to this Board, but has not been yet acted upon. Should it appear at the hearing that said proprietors are entitled either in law or equity to consideration by way of damages, the entire and free control of these Works may afford the readiest and most effectual means of repairing said damages and quieting said claim.

Last winter an act was obtained from the Legislature authorizing the city to raise the water at the Lake two feet, with the consent of the towns of Framingham, Natick and Wayland. Their consent has not yet been obtained; but it is still hoped it may be. In the meantime, the proper steps have been taken to obtain authority from the present Legislature, unencumbered by conditions, to raise the Lake as before proposed. In the hope that the act of last year would be accepted, and as a preparation to raise the level of the Lake, most of the land damages that would result from such raising have been adjusted and paid for—it being deemed a mere matter of time when said authority to raise the Lake should be obtained. Extensive improvements have also been made upon the roads in Natick, preparatory to the same object—the city having expended for that purpose on roads that might be flooded or damaged by such raising of the Lake, nearly or quite \$3,000.

As a necessary preparation for the same object, the dam at the outlet has been overhauled, and to some extent been reconstructed, with a wide overflow at the proposed elevation to facilitate and make safe the discharge of all superfluous water. A new road has been built from the Superintendent's house across the city land and by the borders of the Lake to the dam; thus facilitating access thereto for the purpose of repair and inspection. The cost of these improvements has been about \$3,000.

The only matters remaining to be done preparatory to raising the Lake will be the raising of the gate house and the sea wall contiguous thereto; and the adjustment of a very few individual claims for damage, few in number and small in amount. It is very much to be hoped that the current year will see these all accomplished; and that next winter the Lake will be raised to ten feet above Knight's flume.

The new main which the City Government has authorized this Board to lay, connecting the reservoir at Brookline with the city, is in good progress of construction. A contract for about four miles of 40-inch pipes, deliverable in Boston, has been made with Messrs. J. W. & J. F. Starr, of Camden, N. J., (who were the lowest bidders therefor,) for \$33 per gross ton. This contract is deemed to be very favorable, and the contractors are deemed to be entirely responsible; and the very low price of pig iron which prevailed at the time the contract was made, will without doubt enable the contractors to realize a handsome profit on the job.

The Board have been in expectation of receiving a portion of this pipe before the harbors would be closed;

but the season is now so far advanced, and the cold has been so severe, that little hope can now be entertained of receiving any considerable quantity before spring. Six members of the Board visited the works of Messrs. Starr about the 20th of November, and inspected the casting of one pipe. Something over thirty pieces were then cast, and one of the Board on a subsequent visit reported the completion of over one hundred, and probably now more than two hundred are cast. The pipes seen by the members of the Board, and by the City Engineer, exhibited a very satisfactory appearance; and the whole establishment of the Messrs. Starr seemed to be one of great activity and apparent efficiency.

Application has been made to the Legislature for power to lay the new main on a route offering some advantages over the old one, which will probably be granted.

In preparation for the reception and proving the new pipe when it shall come to hand, a portion of the Boston Wharf has been rented, and suitable hoisting apparatus and proving press have been obtained; and when the pipe shall be supplied, no time will be lost in proceeding to put it in position, and the work will be prosecuted with as much vigor and force as can be advantageously applied. It can hardly be expected that the work can be completed in this coming season, but it is hoped that a small portion only will be left for the following year.

A portion of main 20-inch pipe has been laid during the year, rendered necessary by the reconstruction of the bridge in Dover street. For a more minute notice, see the Report of the City Engineer, annexed

hereto. The cost of this portion thus rendered necessary, is \$5,752. It would seem to be right that this amount should be charged to some different appropriation, as it was not necessary for the improvement of the Water Works.

The daily consumption of water during the last year, has been (as appears from the Engineer's Report) 12,847,000 wine gallons, or 121,000 gallons daily more than in 1857, when it was 12,726,000 gallons. Last year, estimating the number of inhabitants at 173,000, the daily individual consumption averaged 73 gallons. The average annual growth of the city has been estimated at 5,000; and if the number of inhabitants be now taken at 178,000, the average daily consumption would be about $72\frac{1}{4}$ gallons for each individual. But it is hardly to be supposed that the increase of the population during the last year has come up to 5,000; and it will be a safer estimate to regard the individual consumption as having kept up to the standard of 1857, than to suppose it to have lowered by the augmentation of 5,000 inhabitants.

Inasmuch, then, as there does not appear to have been in the last year any individual increase in waste or consumption, the Board very gladly omit to dwell upon the annual topic of *unnecessary waste*.

A petition is now before the Legislature, (as it was last year,) for the annexation of Roxbury to Boston. This matter has an important bearing upon the supply of water; and although a new main will give an additional supply, the cautions suggested by this Board in their report of last year, (p. 11,) are deemed to be worthy of renewed attention. As that report is acces-

sible, it is not deemed necessary to repeat the matter here.

The subject of *meters* has received a good share of the attention of the Board; and it is a pleasure to state that Worthington's meters, which have been tested to a considerable extent, bid fair to be reliable. Made of iron, they are subject to corrosion; but made of composition, they are thought to be unexceptionable. Their cost is higher than is desirable, but it is deemed best to use the most expensive. As the Hewes meters, which have been in use for several years, are found to be imperfect and unreliable, the Board have ordered (in addition to 12 now in use on trial,) 63 new composition meters of Worthington, the cost of which will be near \$5,000. The use of meters in several cases appears to be indispensable, and it is thought best, in replenishing the stock of the city, that an article worthy of confidence, both in accuracy and durability, should be obtained.

Extension of the Works. Besides about 400 feet of 20-inch pipe inserted in the main crossing Dover Street Bridge, there have been laid during the last year 2,689 feet of 12-inch against 4,068 laid in 1857; 6,877 feet of 6-inch against 10,623 in 1857; and 1,991 of 4-inch against 2,274 in 1857;—in all (besides the 20-inch) 11,557 feet against 17,950 feet in 1857. The whole length of pipe of 4-inch and upwards, laid in the city, is now a little over 122 miles.

By reference to the Engineer's Report, it will be seen that 501 feet of 4-inch, and 379 feet of 6-inch, have been taken up and relaid in different localities, owing to the grades of the streets or other causes rendering them insecure or inefficient.

The number of *new stopcocks* is 21, making the whole number 1,046.

The number of *service pipes* laid during the year is 842, making the whole number 21,326.

New hydrants to the number of 23 have been established in the different parts of the city, making the whole number 1,331 ; for other interesting information in regard to these items of extension and improvement, reference is made to the Engineer's Report.

The Annual Report of the Water Registrar appears to contain all the information required of him by the ordinance.

The whole amount received for water rents during the year has been \$303,934.73 ; *i. e.* \$3,934.73 more than the estimate at the beginning of the year. The estimate for 1859 is \$310,000.

The number of water takers is now 22,414, being an increase during the year of 812 — a greater increase than has occurred in any of the last four years.

The usual classification of the various water tenants has been prepared in a condensed form, and a statement of the amount paid by each class, the whole being collated with similar tables for the preceding year, is here inserted.

1856	1857	1858		1856	1857	1858
15,260	15,645	16,553	Dwelling Houses,	\$169,129.69	176,118.49	189,620.87
3,515	3,618	3,744	Stores, Shops, Offices, Cellars, etc.,	26,542.98	27,983.78	30,047.13
426	520	404	Hotels, Restaurants, Saloons, ..	11,065.53	12,224.90	12,274.07
648	687	702	Stables,	8,297.10	8,929.10	8,704.94
8	9	8	Railroads,	8,681.68	7,532.05	7,162.32
3	2	3	Ferry Companies,	2,712.16	1,931.68	1,966.90
30	31	32	Steamboats,	4,865.71	4,666.81	4,839.39
720	740	698	Hose,	2,192.00	2,260.00	2,132.00
1	1		Motive Power,	516.23		
84	84	80	Sugar Refineries, Distilleries, Breweries and Bakeries, ...	10,202.25	9,622.73	9,231.76
4	3	3	Gas Companies,	621.22	538.34	641.44
			Other Manufacturing Purposes,	22,857.68	20,618.10	20,069.33
			City Buildings and other City uses,	3,777.72	4,165.78	4,158.81
			Public Buildings, Charitable Institutions, etc.,	1,989.95	2,109.84	2,813.15
			Shipping Contract with Water- man,	4,387.30	3,898.24	3,892.93
			Street Waterers,			422.00
			Street Waterers (in Roxbury),	100.00		
			Building Purposes,	1,085.05	1,039.96	1,727.95
			Other Purposes,	1,010.24	4,924.75	1,495.49
				\$280,034.44	288,564.55	301,140.48

A statement of *receipts and expenditures* during the last year, by the clerk of the Water Board, or service clerk, is hereto annexed. The whole amount of expenditures appears to be \$76,006.01, including cost of laying pipes over the Dover Street Bridge, \$5,752.70, which should properly go to appropriation for Bridges. Of this, \$47,561.41 was for the extension of the Works, leaving \$28,444.60 as the amount of the expenses of this department for the last year — being less than the

expenses of 1857 by \$1,733.30. This is quite an auspicious circumstance, that while the Works have been extended, the expense of taking care of them is diminished.

It has been noticed that the City Auditor has for several years been accustomed to regard, in his annual report, *the cost of the Water Works* as the amount of the *water debt*. And this has continually increased, because there has been no surplus receipts from water rents to diminish it. It is respectfully submitted that this is confounding two quite distinct things. The *water debt* is contracted under provisions of the acts authorizing the city to bring the water into the city, which has some special provisions in relation thereto. By sections 11, 12 and 13 of the water acts, as condensed in the City Ordinances, the city was authorized to issue *water scrip* to meet the whole cost of the enterprise. In section 14, it is further provided, that "the said City Council may, whenever and so far as deemed necessary, issue and dispose of notes, scrip, or certificates of debt, to meet all payments of interest which may accrue upon any scrip by them issued: *provided*, however, that no scrip shall be issued for payment of interest as aforesaid, after the expiration of two years from the completion of said aqueducts and other works; but payment of all interest that shall accrue after that time, shall be made from the net income, rents, and receipts for the use of the water, if they shall be sufficient for the purpose; and if not, then the payment of the deficiency shall be otherwise provided for by the City Council." That is, "otherwise" than by disposition "of notes, scrip or certificates of debt." So that it seems

as if the city was prohibited after two years from paying the accruing interest by loans in any shape whatever.

In conformity with the provisions of this act limiting the water *scrip* (which is regarded as synonymous with water *debt*) to the cost of the Works, and interest thereon for two years after their "completion," the Water Board passed an order March 20, 1851, "that the construction account of the Water Works be closed on the 30th April (then next ensuing), and the Works be then considered as finished, and all expenditures made after that time be charged to the current expenses of the year."

From this action it would appear that the cost of the Works, as it should appear to be on the 1st of May, 1851, with two years' interest added to the same, would, under the act, constitute the water *debt*, whether it should be sufficient to cover the cost of the Works or not; and if there should subsequently occur a deficiency, it should "be otherwise provided for" than by loan.

Now it appears from the Auditor's account, distributed to the citizens, that the water debt, or cost of the Works at that time, May 1, 1851, was \$4,948,363.97; add two years' interest at \$4.85, (the average rate on the scrip,) viz., $\$239,995.65 \times 2 = \$479,991.30$, and the water debt is obtained, viz., \$5,428,355.27. And this is a maximum sum, not liable to increase under any circumstances contemplated by the act, unless by what will be noticed presently. Now if that sum be, as represented, the water *debt*, the interest upon it for the last year is \$263,275.23, and the expenses of the Water Department, as above stated, are \$28,444.60, making a

total of the interest and expenses \$291,719.83, while the water receipts have been \$303,931.73, or \$12,211.90 more than interest and expenses.

It is not pretended that the sums here used are entirely accurate — there is not time or opportunity to make them so — but they are sufficiently accurate to illustrate the principle involved.

The scope and intent of the act (the Board admit) would justify and require the amount of the cost of the Works, as exhibited May 1, 1851, to be augmented by the cost of Jamaica Pond aqueduct, which was subsequently paid for, and by such damages as were subsequently paid, but previously incurred. Then on the other hand, that sum should be diminished by the amount of sales since made, say of the Jamaica Pond works, the reservoir and lands in Marlborough, Boon Pond, and appendages, buildings, privileges, land and wood, in neighborhood of the Lake and along the line of aqueduct to Brookline. If these items were properly made up, added and subtracted, it is believed that the cost would be diminished by an amount varying from \$25,000 to \$50,000.

And further, if the amount spent for new pipe over Dover Street Bridge were carried to its proper account, there would be $\$12,213.18 + \$5,752.70 = \$17,965.88$ more, as the result of this year's receipts, to go as an offset for so much of the water debt.

If the principle here developed be regarded as the true one (and it certainly seems to be so, taken in connection with other parts of the act,) this Board would respectfully suggest to the most excellent City Auditor the propriety of making up the amount of water *debt*

upon it, and exhibit the same in his annual report. If he thinks best, he can also exhibit the *cost* of the Works as he has hitherto done ; though it is not very obvious why the delinquency of the City Council in providing adequately for the expense of this department of the city service should be more prominently exhibited than that for any other branch of city expenditure.

All which is respectfully submitted.

JNO. H. WILKINS, *President*.
SAM'L HATCH,
THOMAS P. RICH,
SAM'L HALL,
TISDALE DRAKE,
EBENEZER JOHNSON,
BENJAMIN JAMES.

RECEIPTS AND EXPENDITURES.

STATEMENT OF EXPENDITURES MADE BY THE COCHITUATE WATER
BOARD, FROM DECEMBER 31ST, 1857, TO JANUARY 1ST, 1859.

Beacon Hill Reservoir, for labor, &c.,	-	-	\$461	94
South Boston " " "	-	-	287	00
East Boston " " "	-	-	270	07
Brookline " " "	-	-	573	59
Marlborough " " "	-	-	20	63
Laying Main Pipe, for stock, &c.,	-	-	4,949	91
Main Pipe,	-	-	16,608	46
Service Pipe,	-	-	9,043	86
Stable,	-	-	932	17
Hydrants,	-	-	1,125	37
Stopcocks,	-	-	306	93
Blacksmith Shop, for stock, &c.,	-	-	166	42
Plumbing Shop, " "	-	-	40	94
Proving Yard, " " in repair shop,	-	-	65	63
Pipe Yard, for painting buildings, &c.,	-	-	65	30
Aqueduct Repairs, for labor, &c.,	-	-	1,151	21
Lake, labor and stock, finishing dam, raising road, &c.,	-	-	5,750	57
Hydrant and Stopcock Boxes,	-	-	794	25
Repairing Main Pipe,	-	-	913	98
Laying Service Pipe,	-	-	5	50
Repairing Service Pipe,	-	-	1,638	40
Do. Streets,	-	-	1,340	95
Do. Hydrants,	-	-	1,750	72
Do. Stopcocks,	-	-	682	46
<i>Amount carried forward,</i>			\$48,946	26

1859.]

WATER.

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<i>Amount brought forward,</i>	\$48,946 26
Meters, - - - - -	630 93
Salaries, - - - - -	6,738 68
Travelling Expenses, - - - - -	55 04
Office Expenses, including rent, fuel, gas, &c., for City Engineer's office, - - -	1,878 56
Taxes, - - - - -	262 47
Tolls and Ferriage, - - - - -	124 36
Fountains, - - - - -	37 50
Carting, - - - - -	262 25
Postage and Express, - - - - -	21 22
Tools, - - - - -	330 04
Stationery, (including Stationery for Water Registrar and Superintendents,) - -	136 37
Rents, - - - - -	65 00
Land and Water Rights, - - - - -	850 00
Off and on Water, - - - - -	2,747 39
Wages, Proving Yard, - - - - -	2,581 21
Do. Plumbing Shop, - - - - -	535 72
Do. Blacksmith Shop, - - - - -	515 47
Do. laying Main Pipe, - - - - -	3,688 33
Do. do. Service Pipe, - - - - -	3,613 52
Do Miscellaneous - - - - -	46 05
Damage, (flowing land in Newton,) - - -	25 00
Oil, - - - - -	94 81
Printing, (including Water Registrars and Su- perintendents,) - - - - -	265 43
Miscellaneous Expense (Surveying Land around the lake and in Marlborough, &c., - -	1,554 40
New Main, - - - - -	3,093 41
	<hr/> 79,099 41
Less amount drawn for New Main, - - -	3,093 41
Amount expended for the year, - - -	<hr/> \$76,006 01
(\$5,752 70 of this amount was paid for mov- ing the main pipe, in consequence of lowering the Dover Street Bridge.)	
<i>Amount carried forward,</i>	\$76,006 01

Amount brought forward,

\$76,006 01

Cash paid the City Treasurer.

Received Rent for Arches under B.

H. Reservoir, - - - 300 00

Received for Old Building, - - 100 00

" " Land, - - - 2,595 92

" " off & on Water, 1329 00

" " " waste, &c., 522 00 1,851 00

" " the Marlboro' Reservoir, 2,000 00

" " Wood, - - - 42 50

" " Pipe, Laying, &c., - 885 58

" " Grass and Pasture, - 175 00

" " Rent of Hopkinton Res-

ervoir, - - - 1,250 00

9,200 00

Balance,

- - - - -

\$66,806 01

EXTENSION OF THE WORK.

Laying Main Pipe, - - - 4,949 91 \$76,006 01

Main Pipe, - - - - 16,608 46

Service Pipe, - - - - 9,043 86

Hydrants, - - - - 1,125 37

Stopcocks, - - - - 306 93

Lake, finishing Dam, &c., - - 2,823 28

Hydrant and Stopcock Boxes, - 400 00

Tolls and Ferriage, - - - 100 00

Carting, - - - - 225 00

Tools, - - - - 330 04

Land, - - - - 850 00

Wages, Proving Yard, - - 2,581 21

" Plumbing Shop, - - 400 00

" Blacksmith Shop, - - 450 00

" laying Main Pipe, - - 3,688 33

" " Service Pipe, &c., - 3,619 02

Oil, - - - - 60 00 47,561 41

Amount of Annual Expense,

- - -

\$28,444 60

EXPENDITURES AND RECEIPTS ON ACCOUNT OF THE WATER
WORKS, TO JANUARY 1ST, 1859.

Amount drawn by the Commissioners, -	- \$4,043,718	21
“ “ “ Water Board, 1850, -	366,163	89
“ “ “ “ “ 1851, -	141,309	23
“ “ “ “ “ 1852, -	89,654	20
“ “ “ “ “ 1853, -	89,854	03
“ “ “ “ “ 1854, -	80,182	35
“ “ “ “ “ 1855, -	63,866	33
“ “ “ “ “ 1856, -	81,429	35
“ “ “ “ “ 1857, -	96,931	25
“ “ “ “ “ 1858, -	76,006	01
	<u>\$5,129,114</u>	85

Amount paid the City Treasurer

by the Commissioners, -	- \$47,648	38
Amt. paid by Water Board, 1850,	8,153	52
“ “ “ “ 1851,	5,232	38
“ “ “ “ 1852,	15,869	12
“ “ “ “ 1853,	4,621	40
“ “ “ “ 1854,	12,423	29
“ “ “ “ 1855,	9,990	38
“ “ “ “ 1856,	7,840	43
“ “ “ “ 1857,	13,750	00
“ “ “ “ 1858,	9,200	00
	<u>134,728</u>	90
	<u>\$4,994,385</u>	95

Sundry Payments by the City,	\$50,114	84
Discount and Interest on Loans,	2,861,880	04
	<u>2,911,994</u>	88
	<u>\$7,906,380</u>	83
Sundry Credits by the City, -	\$21,374	47
Amount rec'd for Water Rates,	2,065,356	48
	<u>2,086,730</u>	95
	<u>\$5,819,649</u>	88

SAMUEL N. DYER,

Clerk of Cochituate Water Board.

A P P E N D I X .

CITY ENGINEER'S REPORT.

BOSTON, JANUARY 5, 1858.

HON. JOHN H. WILKINS,

President of the Cochituate Water Board.

SIR:—The usual Annual Report of matters connected with the Water Works is herewith submitted.

Lake Cochituate, the Conduit, all the structures on the line of the Works, and all the Reservoirs and the pipe work in the city, are in as good condition as they have ever been since the introduction of water into the city.

The water has been of the very best quality throughout the year.

The total amount wasted from the Lake during the year has been 1,934,500,000 gallons, it being a daily average of 5,300,000 gallons of water.

New Pipes on Dover Street Bridge.

The 20-inch main, originally laid to supply South Boston with water, was laid under the roadway of this bridge, and at just about the level of mean high water, or grade 12.50. The bridge floor, at Harrison avenue, was at grade 16.50, and at the draw at grade 21.50.

High water varies from grade 12 to grade 16, grade 15 being the level of the coping of Dry Dock, Charlestown.

This bridge having become very much out of repair, it was decided by the Committee on Bridges to rebuild it, and lower

its surface so as to be level with, or but little above, the grade of Harrison avenue.

The water way between the Harbor Commissioners' lines on the Boston and South Boston sides, is about 450 feet in width. It was decided by the Committee to rebuild this portion, and about one hundred feet in addition, of wood.

Lowering the surface of the bridge made it necessary either to lower the pipes under the wooden portion, or to remove them and re-lay them under the sidewalk. Had they been lowered, they would have been in danger of being broken by the ice which would have jammed against them whenever a thaw took place in South Bay.

A break of the pipes at such a time, and in such a place, would have deprived the whole of South Boston of water for several days, as it would have been very difficult to repair.

To prevent any dangers of this sort, it was decided not to lower the pipes, but to remove those on the south-westerly side of the draw to a new position under the sidewalk. This has been done by driving new piles for their foundations, and so arranging the bridge that the sidewalk where the pipes are laid should be built of wood, although the sidewalk on the north side of the bridge was to be of brick.

The height required for the draw and its counterbalance, made it necessary, however, to lower about 150 feet in length of the pipes, on the South Boston side, otherwise the draw could not be opened or shut. The pipes here may be troubled by the ice; if so, additional piles will have to be driven to secure them. A row of fender piles will have to be driven on the south-westerly side of the bridge and draw, to protect that portion of the pipes from being broken by vessels. They are now more exposed to this danger than formerly, because being then full nine feet from the edge of the bridge, the pipe box was protected by it.

Instead of removing the old pipes laterally, it was decided to lay a new line, and not draw the water off the old ones until both ends of the new were ready to be connected with

the old. By doing the work in this way, the water was shut off from the pipes but a few hours at a time, and the inhabitants of South Boston were not put to any inconvenience for the want of water, as they would have been had the old pipes been removed laterally.

The old line of pipes was laid in 1849, or about nine years ago. When taken up, it was found that some of them had been covered, internally, with tubercles which measured about two inches in area on their surfaces, by about three quarters of an inch in height, whilst others had scarcely a lump raised in them.

An examination showed that those which were corroded the least, had, in casting, been covered with the sand used in the molds, which had, in part at least, become vitrified and burned into the metal of the pipes. It would seem that this was the cause of their non-corrosion.

Those which were covered with the tubercles were corroded to a depth of about one-sixteenth of an inch; the iron to that depth cutting with the knife very much like plumbago. Plaster casts of several portions of the pipes have been taken to show their corrosion, which are preserved in the office. This matter was very fully treated of in the report of the Water Board for the year 1852. In comparing these pipes with the descriptions of the tubercles found in the pipes examined at that time, it would seem that the corrosion is very energetic at first, but that it gradually decreases in energy year by year. A still longer time will be required, however, before this can be established as a fact.

Most of the new pipes laid on this bridge are Scotch pipes, coated with Dr. Smith's patent preparation, which is found in Great Britain to answer an excellent purpose. It was thought advisable by your Board to use these pipes here, — although their cost was a little more on account of the coating, — because it gave the best opportunity to test the value of an internal coating in preserving the pipes, as all the water used in South Boston must pass through them.

Manholes were also put in this line of pipes, so that at any time the water may be drawn off for the purpose of their examination, and to clean out the syphon, which has never been done since it was laid. The probability is that the syphon has partly filled up by deposits, and it will be proper to examine it and clean it out during the coming season.

Conduit.

The following table shows the different heights at which the water has been running, and the number of days in each month at the different heights. It being understood that the Conduit is but *six feet four inches* in height.

1858.	HEIGHTS IN FEET AND INCHES.						
	5.10	6.0	6.4	6.6	6.8	7.0	8.0
	NUMBER OF DAYS IN EACH MONTH.						
January,	6	25	.....	.....	.....	.....	.....
February, .....	.....	10	5	.....	.....	12	1
March, .....	.....	3	4	3	.....	21	.....
April,	18	12	.....	.....	.....	.....	.....
May,	31	.....	.....	.....	.....	.....	.....
June,	13	14	3	.....	.....	.....	.....
July, .....	.....	.....	29	.....	2	.....	.....
August, .....	.....	.....	31	.....	.....	.....	.....
September, .....	.....	.....	30	.....	.....	.....	.....
October, .....	.....	9	17	.....	.....	.....	4
November, .....	.....	30	.....	.....	.....	.....	.....
December, .....	.....	5	24	.....	2	.....	.....
	68	108	143	3	4	33	5

It will be seen by this table that in 176 days the Conduit has been run less than full, in 143 days just full, and in 45 days it has been running with a head on it varying from two inches to one foot eight inches.

The least water that has been run through it has been one foot six inches more than originally designed.

Average Monthly Heights of Water in the Reservoirs at Brookline, Beacon Hill, South Boston, and East Boston, 1854—1858 inclusive.

MONTH.	BROOKLINE.				BEACON HILL.				SOUTH BOSTON.				EAST BOSTON.			
	1854	1855	1856	1857	1858	1854	1855	1856	1857	1858	1854	1855	1856	1857	1858	1858
JAN.,	123.55	124.02	120.44	123.76	124.55	113.34	118.84	115.87	112.09	116.33	108.39	113.41	109.83	110.28	113.17	100.73
FEB.,	123.72	123.91	123.71	123.93	124.56	115.49	117.16	116.86	114.28	113.81	111.55	114.64	109.80	110.39	113.28	92.08
MARCH, ...	123.49	124.30	123.50	123.94	124.37	117.48	119.47	116.87	114.10	114.27	117.83	114.41	109.86	110.53	113.28	97.61
APRIL,	123.07	124.37	124.18	124.15	124.63	117.34	119.68	118.48	115.51	117.10	120.56	115.63	109.58	110.76	113.05	99.08
MAY,	122.35	124.17	124.27	124.11	124.49	118.33	119.27	118.03	114.22	117.70	119.99	112.38	107.64	111.24	112.67	100.64
JUNE,	122.63	123.48	124.25	124.37	124.54	117.13	113.59	113.42	114.47	116.40	118.55	115.10	109.30	111.05	86.70	98.29
JULY,	123.99	124.05	123.72	124.36	125.65	116.54	117.84	114.92	114.18	115.35	116.87	114.32	109.73	110.45	114.12	94.98
AUG.,	124.37	123.60	124.02	123.93	124.56	114.40	117.47	116.84	114.00	114.81	113.31	113.69	110.65	110.35	113.85	95.30
SEPT.,	124.61	122.93	124.12	123.46	124.60	115.22	117.41	115.92	114.72	116.45	114.46	112.16	108.70	110.19	110.90	94.42
OCT.,	124.70	123.38	123.97	124.40	124.41	114.96	117.92	116.41	116.21	116.59	114.89	111.52	107.68	107.58	111.46	96.90
NOV.,	124.70	124.19	123.98	124.29	124.62	114.93	117.91	115.77	115.98	116.73	115.00	102.06	107.55	111.37	114.22	100.23
DEC.,	122.70	123.45	123.79	124.65	124.60	113.12	116.88	114.40	117.45	116.44	111.54	108.93	109.84	112.98	114.16	98.39
Average,...	123.65	123.82	123.63	124.11	124.63	115.69	117.79	116.15	114.77	116.00	115.24	112.35	109.18	110.60	110.91	97.49
																94.11
																94.18
																94.42

NOTE.—The above average heights are given in feet and parts, above marsh level. Maximum high water in the Brookline Reservoir is 124.6 feet above marsh level. By deducting the heights in the City Reservoirs from the heights in the Brookline Reservoir, in each month, we find the LOSS OF HEAD in the different sections of the city at that time.

*Loss of Head from Brookline Reservoir to Beacon Hill and
East Boston Reservoirs.*

The effect of increased consumption of water in the city may be seen by reference to the table in this and previous reports of *average annual heights of water in the Reservoirs*.

A synopsis is given in the following table.

YEAR,	Average annual heights of Water above Marsh Level in			Loss of Head from Brookline to Bea- con Hill Reservo r.	Loss of Head from Brookline to East Boston Reservoir.
	Brookline Reservoir	Beac'n Hill Reservoir.	E. Boston Reservoir.		
1850,	123.16	119.04	.....	4.12	.....
1851,	123.36	119.39	105.06	3.97	18.30
1852,	123.67	116.60	104.07	7.07	19.60
1853,	122.86	114.89	104.91	7.97	17.95
1854,	123.65	115.69	99.84	7.96	23.81
1855,	123.82	117.79	97.49	6.03	26.33
1856,	123.66	116.15	94.11	7.51	29.55
1857,	124.11	114.77	94.18	9.34	29.93
1858,	124.63	116.00	94.42	8.63	30.21

Extreme high water in Brookline Reservoir is 124.6 feet.

Consumption of Water. Daily Average Number of Wine Gallons drawn from the Brookline Reservoir.

MONTHS.	1851	1852	1853	1854	1855	1856	1857	1858
January,	7,233,700	8,280,900	8,050,500	10,695,200	9,702,700	12,669,000	15,089,000	12,160,000
February,	7,221,100	8,790,300	8,643,600	10,654,200	10,349,800	12,791,000	14,175,000	14,399,000
March,	6,137,900	8,521,100	8,202,200	9,582,100	10,125,600	12,504,000	13,941,000	14,154,000
April,	5,365,200	8,048,700	7,903,600	8,738,500	8,540,000	10,800,000	12,454,000	13,465,000
May,	6,238,400	8,350,000	8,123,400	9,685,300	9,103,800	10,378,000	12,414,000	11,423,000
June,	7,925,000	8,033,100	8,945,900	11,745,200	9,984,400	11,223,000	12,504,000	10,867,000
July,	7,180,200	9,608,000	8,809,200	10,613,800	11,056,600	13,167,000	13,551,000	13,621,000
August,	7,235,000	9,709,300	8,461,900	10,028,100	11,120,800	12,664,000	13,077,000	13,141,000
September,	7,230,600	7,920,000	8,640,700	9,712,400	11,710,800	11,522,000	12,030,000	12,745,000
October,	6,716,600	6,930,000	8,871,100	8,769,800	10,771,200	11,891,000	10,864,000	12,969,000
November,	6,473,500	6,637,900	8,624,700	8,030,200	10,383,200	11,691,000	11,372,000	12,143,000
December,	7,663,400	7,195,800	9,228,400	10,597,600	11,307,200	13,284,000	11,241,000	13,075,000
Average for year,	6,883,800	8,125,800	8,542,300	9,902,000	10,346,300	12,048,600	12,726,000	12,847,000

Monthly Fall of Rain, in inches, in 1858.

MONTH.	PLACES AND OBSERVERS.						
	Lake Cochituate, by E. F. Knowlton.	Boston, by J. P. Hall.	Lovell, by Merrimack Manufacturing Co. J. B. Francis.	Lovell, by Locks and Canals Co. J. B. Francis.	Waltham, by E. Hobbs.	Cambridge, by W. C. Bond.	Providence, by A. Caswell.
January,	2.61	3.28	2.58	1.88	2.00	3.44	3.33
February,	3.32	2.30	1.78	1.49	1.53	1.86	2.80
March,	3.87	2.18	1.52	1.47	0.86	1.77	2.05
April,	4.39	5.18	4.21	4.11	4.10	3.81	3.63
May,	2.23	3.89	3.53	3.32	3.22	3.71	2.35
June,	10.17	8.09	5.40	5.07	6.42	7.55	5.55
July,	3.46	4.56	3.24	3.42	4.02	4.36	4.90
August,	6.42	7.03	3.42	3.18	4.02	5.57	8.20
September,	5.17	5.02	3.58	3.10	3.86	5.11	3.05
October,	2.12	3.03	3.10	3.13	2.21	2.87	2.80
November,	2.91	3.38	1.26	2.01	2.08	2.37	2.40
December,	1.99	4.73	4.11	3.62	3.08	3.04	3.45
Totals,	48.66	52.67	37.73	35.80	37.40	45.46	44.51

*Statement of the Location, Size, and Number of Feet of
Distributing Pipes, laid in the Year 1858.*

IN WHAT STREETS.	BETWEEN WHAT STREETS.	Diam. of Pipe in inches.	Feet of Pipe.
BOSTON PROPER.			
Harrison Avenue,	Springfield and Newton,	12	950
	Total 12-inch, Boston Proper,		950
North Charles,	Poplar and the Bridge,	6	145
Poplar,	North Charles and the Dock,	6	65
East Chester,	Washington and Harrison Avenue,	6	326
East Chester,	Harrison Avenue and Albany,	6	325
West Chester,	West of Tremont,	6	500
Worcester,	West of Tremont,	6	268
Parker,	Washington and Harrison Avenue,	6	225
New Devonshire,	Franklin and Milk,	6	229
West Canton,	West of Tremont,	6	150
Northampton,	East of Harrison Avenue,	6	350
Concord,	West of Tremont,	6	89
	Total 6-inch, Boston Proper,		2672
Edgerly Place,	South Cedar and Fayette,	4	139
Goodwin Place,	From Revere street,	4	150
Washington,	For Metropolitan Stable,	4	183
Washington,	Rear of No. 1187,	4	138
	Total 4-inch, Boston Proper,		610
SOUTH BOSTON.			
D,	Sixth and Eighth,	12	328
Fourth,	G and K,	12	1411
	Total 12-inch, South Boston,		1739
Eighth,	D and E,	6	206
Seventh,	D and E,	6	575
Sixth,	D and E,	6	223
Foundry,	Fourth and Swan,	6	132
G,	Opposite the Reservoir,	6	50
Sixth,	K and L,	6	425
Fifth,	L and M,	6	350
Ninth,	K and L,	6	233
Sixth,	Dorchester and F,	6	234
First,	A and B,	6	48
	Total 6-inch, South Boston,		2476
Quincy,	F and Dorchester,	4	183
Ward,	Dorchester and Preble,	4	310
Gifford Place,	From Ward street,	4	173
Granite,	For Proving Yard,	4	113
First,	For Downer's Oil Factory,	4	100
Athens,	C and D,	4	340
Telegraph,	Gates and Old Harbor,	4	162
	Total 4-inch, South Boston,		1381
EAST BOSTON.			
Eagle,	Trenton and Knox,	6	416
Knox,	Eagle and Condon,	6	310
Everett,	Orleans and Cottage,	6	723
Bremen,	North of Glendon,	6	280
	Total 6-inch, East Boston,		1729

RECAPITULATION.

SECTION.	1858.	Diameter in inches.		
		12	6	4
Boston Proper, . . .	{ Total number of feet laid,	950	2672	610
	{ Stop-cocks in the same,		7	3
South Boston, . . .	{ Total number of feet laid,	1739	2476	1381
	{ Stop-cocks in the same,	1	4	5
East Boston, . . .	{ Total number of feet laid,		1729	.....
	{ Stop-cocks in the same,		1	.....
	Sums of Pipes,	2689	6877	1991
	Sums of Stop-cocks,	1	12	8

Statement of the Length of different Sizes of Pipes laid, and the Number of Stop-cocks put in, to Jan. 1, 1859.

DIAMETER OF PIPES IN INCHES.

	36	30	24	20	16	12	6	4	Aggregate.
Feet of Pipe laid in Brookline, Roxbury, and Boston proper, . . .	19,355	30,332	5,773	.....	5,714	51,428	219,383	74,238	
Number of Stop-cocks in the same,	4	7	10	.....	12	99	445	189	
Feet of Pipe laid in and for South Boston and Dorchester, . . .	.....	.....	.....	8,155	.....	14,580	67,911	20,910	
Number of Stop-cocks in the same, .....	.....	.....	.....	4	.....	28	86	30	
Feet of Pipe laid in and for East Boston, .....	.....	.....	.....	15,972	1,523	16,114	65,361	2,725	
Number of Stop-cocks in the same, .....	.....	.....	.....	6	3	*21	86	13	
Feet of Pipe laid in Newton and Needham,	985	1,958	.....	.....	.....	159	.....	.....
Number of Stop-cocks in the same, .....	.....	.....	.....	.....	.....	2	1	.....
TOTALS.									
Length of Pipes laid,	20,340	32,290	5,773	24,127	7,237	82,281	352,655	97,873	622,576 feet, equal to 117 miles, 4816 feet.
Number of Stop-cocks put in,	4	7	10	10	15	150	618	232	1,046

* Including one in Branch, for State Prison Pipe.

Adding to the above, the length of the hydrant branches and bends, which is about 4 1-10 miles, and we have a little over 122 miles, as the total length of Pipes of 4 inches and upwards, in diameter, laid down in and for the City of Boston.

During the year, two hundred and ninety-three feet of 4-inch pipe has been taken up and relaid on the north side of Central Wharf, and two hundred and eight feet taken up and relaid on Worcester street, west of Washington street. Two hundred feet of 6-inch pipe has been taken up and relaid on Lenox street, between Washington street and Shawmut avenue, and one hundred and seventy-nine feet taken up and relaid on Broadway, between L and M streets.

Statement of Service Pipe laid in 1858.

Diam. in inches.	Boston Proper.		South Boston.		East Boston.		Total.	
	Number.	Length in Feet.	Number.	Length in Feet.	Number.	Length in Feet.	Number.	Length in Feet.
1.....	15	927	3	237	2	189	20	1,353
$\frac{3}{4}$	10	333	2	84	2	95	14	572
$\frac{3}{8}$	524	15,316	195	6,083	89	2,978	808	24,877
Aggregate,							842	26,302
Making the total number up to January 1, 1859,							21,326	

Repairs of Pipes during the Year 1858.

DIAMETER OF PIPES IN INCHES.														
WHERE.	36	30	24	20	16	12	6	4	2	1½	1	$\frac{3}{4}$	$\frac{5}{8}$	Total
Boston Proper,	8	8	....	1	....	10	13	14	5	54	11	9	201	340
South Boston, .....	....	....	....	6	....	....	....	3	....	....	1	....	21	31
East Boston, .....	....	....	....	6	....	3	....	2	....	....	....	....	19	30
Totals,	8	8	....	13	....	13	19	19	5	54	12	9	241	401

Of the leaks that have occurred in pipes of four inches in diameter, and upwards, sixty-five were caused by the loosening of lead in the joints, three by flaws in the pipes, and nine by settling of the earth.

Total, seventy-seven in pipes of four inches and upwards.

Of the leaks that have occurred in service pipes and two-inch pipes, seventy-eight were caused by the settling of the earth, thirty-five by stiff connections, thirty-one by defective couplings, twenty by frost, thirty-one by flaws in pipes, five by defective cocks, six by tenants, seventy-four stopped by fish, nine by cocks blowing out, twelve struck by picks, sixteen stopped by rust, five gnawed by rats, one by driving piles, one pipe corroded by the soil.

Total, three hundred and twenty-four in service and two-inch pipes.

Statement of the Number of Leaks, 1850-1858.

YEAR.	LEAKS IN PIPES OF A DIAMETER OF		
	Four Inches and upwards.	Less than Four Inches.	Total.
1850	32	72	104
1851	64	173	237
1852	82	241	323
1853	85	260	345
1854	74	280	354
1855	75	219	294
1856	75	232	307
1857	85	278	363
1858	77	324	401

Hydrants.

During the year, twenty-three new hydrants have been established as follows: eight in the City proper, thirteen in South Boston and two in East Boston.

Altogether there have been established up to the present date,

In Boston proper,	-	-	-	-	-	887
“ South Boston,	-	-	-	-	-	248
“ East Boston,	-	-	-	-	-	170
“ Brookline,	-	-	-	-	-	1
“ Roxbury,	-	-	-	-	-	7
“ Charlestown,	-	-	-	-	-	11
“ Chelsea,	-	-	-	-	-	7
Total,	-	-	-	-	-	<hr/> 1,331

Eighty hydrants have been taken out, and replaced by new or repaired ones. One hundred and forty-eight decayed hydrant boxes have been taken out and replaced by others made of Burnetized lumber, and the same material was used for those that have been established.

The usual precautions have been taken to keep the hydrants in order during the winter. They have all been cleaned and oiled, also well packed with salt hay. They are all examined once, and sometimes twice a day, during the coldest weather, to keep them free from ice.

Stop-Cocks.

The stop-cocks are all in good working order, and have been cleaned and oiled the past season. Only one, the thirty-inch stop-cock on the Common, has broken during the year. Twenty-one new stop-cocks have been put in and covered by new stop-cock boxes, and sixty-seven boxes have been renewed.

*Statement of Pipes and other Stock on hand, exclusive of Tools,
January 1, 1859.*

NUMBER OF	DIAMETER IN INCHES.									
	36	30	24	20	16	12	6	4	2	1½
Pipes,.....	15	70	9	79	21	69	160	15	30	25
Blow-off Branches,.....	2	3	....	....	....	....	....	....	....	....
Y Branches,.....	....	1	....	....	1	2	1	....	....	....
3-Way Branches,.....	4	4	....	2	....	5	9	3	5	....
4-Way Branches,.....	....	2	1	....	1	3	3	....	....	....
Flange Pipes,.....	8	9	2	2	....	14	10	....	....	....
Sleeves,.....	5	4	9	4	3	....	1	11	13	....
Clamp Sleeves,.....	6	6	2	....	3	4	9	13	....	....
Caps,.....	....	2	....	....	....	20	16	3	....	....
Reducers,.....	....	1	....	1	1	5	8	2	....	....
Bevel Hubs,.....	....	....	....	....	....	....	4	8	....	....
Curved Pipes,.....	1	3	1	2	2	2	....	3	....	....
Quarter Turns,.....	....	....	....	2	....	....	8	6	....	....
Double Hubs,.....	....	....	....	7	7	....	....	....	....	416
Offset Pipes,.....	....	....	....	....	....	1	4	2	....	....
Stop-cocks,.....	4	2	2	3	2	8	5	1	6	....
Pieces of Pipe,.....	7	1	2	6	....	22	49	15	....	....
Yoke Pipes,.....	....	....	....	....	....	2	5	....	....	....

Hydrants.

9 Wilmarth.
70 Lowell.
9 Hooper.
14 Ballardvale.
4 Long N. Y. Pattern.

For Hydrants. 39 lengtheners, 11 frames, 12 covers, 18 valve seats, 11 nipples, 48 stuffing boxes, 18 plungers, 14 screws, 20 caps, 40 lbs. composition castings, 30 straps, 11 rings, 14 boxes, 16 partly finished boxes, 8 bends, 5 bands

For Stop-Cocks. 35 braces, 8 sets of stands and gear for 36 and 30-inch stop-cocks, 1 frame and cover, 2 wooden boxes, 1 30-inch valve, 145 lbs. 1-inch bolts, 137 lbs. $1\frac{1}{4}$ -inch bolts, 171 lbs. $\frac{5}{8}$ -inch bolts, 44 lbs. nuts, 12 composition screws for 6-inch stop-cocks, 2 composition screws for 36-inch, 1 for 30-inch, 2 composition screws and nuts for 24-inch, 1 composition screw and plunger for 12-inch, 2 screws and plungers for 6-inch, 5 iron screws for 6-inch, 7 composition plungers for 6-inch, 12 iron screws for 4-inch, 42 body rings for 4-inch, 15 composition valves for 4-inch, 200 lbs. composition castings for 4-inch, 16 plungers for 4-inch, 6 plungers for 2-inch, also 3 iron screws for 2-inch stop-cocks, 2 strings nuts, 25 lbs. packing rubber.

For Service Pipe. 5 air cocks, 66 straight boxes, 34 Y boxes, 4 T boxes, 400 square boxes, 43 tubes, 19 caps, 11 flanges, 17 1-inch union cocks, 19 $\frac{3}{4}$ -inch union cocks, 65 $\frac{5}{8}$ -inch union cocks, 975 unfinished $\frac{5}{8}$ -inch union cocks, 9 1-inch T cocks, 19 $\frac{3}{4}$ -inch T cocks, 26 unfinished $\frac{3}{4}$ -inch T cocks, 21 $\frac{5}{8}$ -inch T cocks, 63 unfinished $\frac{5}{8}$ -inch T cocks, 6 $2\frac{1}{4}$ -inch couplings, 21 1-inch connection couplings, 12 $1\frac{1}{4}$ -inch do., 16 $\frac{5}{8}$ -inch do., 42 unfinished $\frac{5}{8}$ inch do., 38 straight cocks, 2 Y cocks, 30 unfinished Y cocks, 60 $\frac{5}{8}$ -inch second-hand union cocks, 130 lbs. second-hand connection couplings various sizes.

Water Meters. 2 large power meters, 28 large Huse, 26 small Huse, 6 small Worthington, 6 large do., 6 small Scotch, 1 large do., 1 small Philadelphia meter, 40 composition connections, 1,114 lbs. connection pipes.

Lead Pipe, &c. 661 lbs. 1-inch, 980 lbs. $2\frac{1}{2}$ -inch, 684 lbs. $\frac{3}{4}$ -inch, 1,562 lbs. $\frac{5}{8}$ -inch, 950 lbs. pieces of various sizes, 350 lbs. sheet lead, 1,600 lbs. pig lead, 250 lbs. gasket.

Block Tin Pipe. $67\frac{1}{2}$ lbs. $\frac{3}{4}$ -inch, 239 lbs. $\frac{5}{8}$ -inch, 15 lbs. $\frac{1}{4}$ -inch, 200 lbs. old, 50 lbs. block tin, 15 lbs. solder.

Blacksmith's Shop. 1,509 lbs. bar iron, 1,272 lbs. working pieces, 145 lbs. sheet iron, 500 lbs. scrap iron, 613 lbs. steel.

Stable. 3 horses, 4 wagons, 1 sleigh, 2 pungs, 4 sets of

harness, 3 robes, 1 ton English hay, 1,000 lbs. salt hay, 500 lbs. straw.

Miscellaneous. 2 sets old curb stones, 4 derricks and apparatus, 2 large boom derricks and apparatus, 1 large crane derrick, 150 feet oak lumber, 8 proving heads, 97 tons gravel, 4 loads cracked stone, lot of old lumber, 1,800 lbs. old cast iron, 4 cords wood, 300 feet of hose, 200 pick handles, 1 cask cement, $\frac{1}{2}$ carboy vitriol, 400 lbs. pipe clay, $\frac{1}{2}$ ton blacksmith's coal, $1\frac{1}{2}$ tons hard coal, 4 bushels charcoal, 600 feet lumber, 67 new picks, 60 lbs. old composition, 40 lbs. composition chips, 1 stove and cooking utensils, lot of old machinery from Marlboro', lot of old bolts, cast-off drills, parts of stop-cocks, &c., large lot of patterns for proving presses, stop-cocks, hydrants, &c., 3 proving presses and apparatus, complete lot of tools for laying main and service pipes, and repairs of same, also tools for machine shop, blacksmith's shop, reservoirs and fountains, office and watchroom furniture.

At Beacon Hill Reservoir. 3,000 feet of old lumber, lot of old iron, tool house, swing stage and irons; capstan, frame and levers; 3 boom carriages, 1 large copper ball, 5 large swivel patterns, 1 drinking fountain, lot of old machinery, 50 feet of hand hose, 4 composition cylinders, 9 composition jets, 3 plate jets, 1 6-inch reducer jet, 2 composition caps with hose cocks, 1 4-inch copper pipe, 3 composition reel jets, 9 cast iron jets.

The new yard for proving the 40-inch pipes has been fitted up, a shed built, and the derrick set up. Everything is now ready to receive the pipes.

Respectfully submitted.

JAMES SLADE,

City Engineer.

WATER REGISTRAR'S REPORT.

WATER REGISTRAR'S OFFICE, }
Boston, January 1st, 1859. }

HON. JOHN H. WILKINS,

President of the Cochituate Water Board.

SIR:—

In conformity with the 16th section of the Ordinance providing for the care and management of the Water Works, passed October 31st, 1850, the following report is made.

The total number of Water Takers now entered for the year 1859, is 22,414, being an increase since January 1st, 1858, of 812.

During the year there have been 1,248 cases where the water has been shut off. Of these, 1,084 were for non-payment of water rates, and 164 were for unnecessary waste of water.

The number of cases where the water has been turned on, is 1,607. Of these, 767 were cases which had been shut off for non-payment of rates, 138 were shut off for unnecessary waste, and 702 were turned on for the first time.

The total amount received from December 31st, 1857, to January 1st, 1859, is - - \$302,409 73

Of the above, there was received for water used in previous years, the sum of - \$1,269 25

Leaving the receipts for water used during the year 1858, the sum of - - - - - 301,140 48

The usual tabular statement of the receipts for the year 1858 is contained in this Report; also, a statement showing the number and kind of water fixtures within the premises of water takers.

Amount carried forward,

\$302,409 73

Amount brought forward, \$302,409 73

In addition to the above, there has been received for letting on water, in cases where it had been shut off for non-payment of water rates, - - - - - 1,522 00

Total amount received during the year, in this office, - - - - - \$303,931 73

The amount of assessments already made for the year 1859, is - - - - - \$243,105 93

The estimated amount of income from the sales of water during the year 1859, is - - 310,000 00

The expenditures of my office during the year 1858, have been - - - - - 3,067 13

The items of this expenditure are as follows, viz.:

Paid Chas. L. Bancroft, for services as clerk, -	\$782 50
" Stephen Badlam, " " -	782 50
" Chas. E. Dunham, for services as inspector, -	626 00
" N. P. Burgess, " " -	494 00
" P. H. Niles, " " -	52 00
" Rand & Avery, for printing, - - -	104 89
" Eayrs & Fairbanks, for stationery, - -	89 64
" George West, for distributing bills, -	26 00
" Stephen Russell, " " - -	26 00
" M. Lyon, " " - -	24 00
" Samuel Gilman, " " - -	24 00
" Theodore Badlam, " " - -	14 00
" E. C. Bailey, for advertising, - - -	15 00
" Stephen Maddox, for washing towels, -	6 60
Amount, - - - - -	<u>\$3,067 13</u>

STATEMENT SHOWING THE NUMBER OF HOUSES, STORES, STEAM
 ENGINES, &c., IN THE CITY OF BOSTON, SUPPLIED WITH
 COCHITUATE WATER TO THE 1ST OF JANUARY, 1859, WITH
 THE AMOUNT OF WATER RATES PAID FOR 1858.

1,452	Dwelling Houses,	\$6 00	\$8,712 00
1,481	"	" 7 00	10,367 00
1,745	"	" 8 00	13,960 00
1,977	"	" 9 00	17,793 00
1,678	"	" 10 00	16,780 00
1,432	"	" 11 00	15,752 00
1,164	"	" 12 00	13,968 00
793	"	" 13 00	10,309 00
641	"	" 14 00	8,974 00
548	"	" 15 00	8,220 00
470	"	" 16 00	7,520 00
455	"	" 17 00	7,735 00
305	"	" 18 00	5,490 00
253	"	" 19 00	4,807 00
181	"	" 20 00	3,620 00
136	"	" 21 00	2,856 00
136	"	" 22 00	2,992 00
71	"	" 23 00	1,633 00
90	"	" 24 00	2,160 00
65	"	" 25 00	1,625 00
74	"	" 26 00	1,924 00
41	"	" 27 00	1,107 00
40	"	" 28 00	1,120 00
21	"	" 29 00	609 00
52	"	" 30 00	1,560 00
298	"	" 31 00	9,238 00
862	"	"	4,805 37
16,461	"	"	<u>\$185,636 37</u>
<i>Amount carried forward,</i>			<u>\$185,636 37</u>

<i>Amount brought forward,</i>			\$185,636 37	
1	Boarding House,	28 00	\$28 00	
1	" "	30 00	30 00	
1	" "	31 00	31 00	
1	" "	33 00	33 00	
1	" "	35 00	35 00	
1	" "	42 00	42 00	
1	" "	65 00	65 00	
1	" "	68 00	68 00	
1	" "	77 00	77 00	
1	" "	82 00	82 00	
1	" "	98 00	98 00	
<hr/> 11			<hr/> 589 00	
2	Model Houses,	15 00	30 00	
9	" "	18 00	162 00	
6	" "	21 00	126 00	
7	" "	24 00	168 00	
1	" "	25 00	25 00	
3	" "	27 00	81 00	
8	" "	30 00	240 00	
3	" "	33 00	99 00	
4	" "	36 00	144 00	
2	" "	39 00	78 00	
3	" "	42 00	126 00	
1	" "	45 00	45 00	
6	" "	48 00	288 00	
1	" "	51 00	51 00	
2	" "	54 00	108 00	
3	" "	60 00	180 00	
1	" "	63 00	63 00	
1	" "	66 00	66 00	
1	" "	69 00	69 00	
1	" "	70 00	70 00	
<hr/> 65 <i>Amounts carried forward,</i>			<hr/> \$2,219 00 \$186,225 37	

65	<i>Amounts brought forward,</i>		\$2,219 00	\$186,225 37
1	Model House,	71 00	71 00	
1	" "	72 00	72 00	
1	" "	75 00	75 00	
2	" "	84 00	168 00	
1	" "	96 00	96 00	
1	" "	129 00	129 00	
1	" "	192 00	192 00	
1	" "	210 00	210 00	
1	" "		13 50	
<hr/> 75				3,245 50
1	Lodging House,	12 00	12 00	
2	" "	25 00	50 00	
1	" "	27 00	27 00	
1	" "	28 00	28 00	
1	" "	33 00	33 00	
6				150 00
1,892	Stores and Shops,	6 00	11,352 00	
2	" "	8 00	16 00	
26	" "	8 50	221 00	
772	" "	9 00	6,948 00	
6	" "	10 00	60 00	
7	" "	11 00	77 00	
10	" "	11 50	115 00	
38	" "	12 00	456 00	
1	" "	13 00	13 00	
34	" "	14 00	476 00	
6	" "	15 00	90 00	
2	" "	16 00	32 00	
6	" "	16 50	99 00	
2	" "	17 00	34 00	
1	" "	18 00	18 00	
7	" "	19 00	133 00	
2	" "	20 00	40 00	
2814	<i>Amounts carried forward,</i>		\$20,180 00	\$189,620 87

2814	<i>Amounts brought forward,</i>	\$20,180 00	\$189,620 87
6	Stores and Shops,	24 00	144 00
1	" "	25 00	25 00
1	" "	31 50	31 50
1	" "	73 95	73 95
306	" "	1,313 26	
3,129			21,767 71
128	Offices,	6 00	768 00
1	" "	8 50	8 50
29	" "	9 00	261 00
3	" "	11 00	33 00
1	" "	11 50	11 50
3	" "	14 00	42 00
1	" "	15 00	15 00
31	" "	151 28	
197			1,290 28
1	Bank,	6 00	6 00
12	" "	9 00	108 00
1	" "	11 50	11 50
2	" "	14 21	
16			139 71
5	Buildings,	10 00	50 00
12	" "	12 00	144 00
2	" "	14 00	28 00
46	" "	15 00	690 00
1	" "	17 00	17 00
1	" "	17 25	17 25
15	" "	18 00	270 00
2	" "	19 00	38 00
10	" "	20 00	200 00
5	" "	21 00	105 00
2	" "	22 00	44 00
4	" "	23 00	92 00
9	" "	24 00	216 00
114	<i>Amounts carried forward,</i>	\$1,911 25	\$212,818 57

114	<i>Amounts brought forward,</i>		\$1,911 25	\$212,818 57
1	Building,	24 50	24 50	
6	"	25 00	150 00	
1	"	25 50	25 50	
1	"	26 00	26 00	
3	"	27 00	81 00	
2	"	26 00	52 00	
5	"	30 00	150 00	
1	"	30 50	30 50	
1	"	31 92	31 92	
1	"	32 50	32 50	
1	"	32 92	32 92	
3	"	33 00	99 00	
1	"	35 00	35 00	
2	"	36 00	72 00	
1	"	36 50	36 50	
1	"	37 00	37 00	
1	"	40 00	40 00	
1	"	41 00	41 00	
1	"	42 00	42 00	
2	"	44 00	88 00	
2	"	45 00	90 00	
1	"	46 50	46 50	
1	"	47 00	47 00	
2	"	48 00	96 00	
1	"	49 00	49 00	
1	"	50 00	50 00	
1	"	51 00	51 00	
1	"	52 00	52 00	
1	"	56 00	56 00	
1	"	57 00	57 00	
3	"	60 00	180 00	
1	"	62 00	62 00	
1	"	72 00	72 00	
<hr/>			<hr/>	<hr/>
167	<i>Amounts carried forward,</i>		\$3,947 09	\$212,818 57

167	<i>Amounts brought forward,</i>		\$3,947 09	\$212,818 57
1	Building,	74 00	74 00	
1	"	76 00	76 00	
1	"	78 00	78 00	
1	"	81 00	81 00	
1	"	82 00	82 00	
1	"	86 50	86 50	
1	"	87 00	87 00	
1	"	91 50	91 50	
1	"	103 00	103 00	
1	"	108 00	108 00	
1	"	120 00	120 00	
1	"	122 50	122 50	
1	"	135 00	135 00	
1	"	139 00	139 00	
1	"	142 50	142 50	
3	"		31 42	
185				5,504 51
38	Churches,	6 00	228 00	
1	"	8 00	8 00	
2	"	9 00	18 00	
1	"	15 00	15 00	
2	"	20 00	40 00	
44				309 00
8	Halls,	6 00	48 00	
13	"	9 00	117 00	
3	"	14 00	42 00	
1	"	15 00	15 00	
3	"		8 21	
28				230 21
3	Private Schools,	6 00	18 00	
2	" "	9 00	18 00	
2	" "	14 00	28 00	
7	<i>Amounts carried forward,</i>		\$64 00	\$218,862 29

7	<i>Amounts brought forward,</i>		\$64 00	\$218,862 29
1	Private School,	15 00	15 00	
1	“ “	18 00	18 00	
1	“ “	30 00	30 00	
10				127 00
1	Theatre,	14 17	14 17	
1	“	22 50	22 50	
1	“	25 00	25 00	
1	“	93 75	93 75	
1	Green House,	15 00	15 00	
1	Custom House,	156 00	156 00	
1	Post Office,	25 00	25 00	
1	Hospital,	160 75	160 75	
1	Marine Hospital, (at Chelsea,)	178 00	178 00	
1	Medical College,	30 00	30 00	
1	State House,	134 50	134 50	
1	Library,	9 00	9 00	
1	“	35 00	35 00	
1	Asylum,	15 00	15 00	
2	“	25 00	50 00	
1	“	35 00	35 00	
3	“	40 00	120 00	
1	“	50 00	50 00	
1	“	96 13	96 13	
1	“	242 48	242 48	
23				1,507 28
16	Market Stalls,	3 00	48 00	
34	“ “	6 00	204 00	
5	“ “	10 00	50 00	
1	“ “		4 50	
1	Market,	33 00	33 00	
1	“	44 00	44 00	
1	“	49 00	49 00	
59	<i>Amounts carried forward,</i>		\$432 50	\$220,496 57

59	<i>Amounts brought forward,</i>	\$432 50	\$220,496 57
1	Market,	67 00	67 00
60			499 50
116	Cellars,	6 00	696 00
4	"	9 00	36 00
1	"	15 00	15 00
26	"	98 42	
147			845 42
2	Hotels,	15 00	30 00
2	"	20 00	40 00
1	"	21 00	21 00
1	"	24 00	24 00
2	"	27 00	54 00
3	"	30 00	90 00
1	"	32 00	32 00
1	"	33 00	33 00
1	"	35 00	35 00
2	"	36 00	72 00
1	"	42 00	42 00
2	"	44 00	88 00
1	"	45 00	45 00
1	"	48 00	48 00
1	"	49 65	49 65
1	"	55 00	55 00
1	"	57 00	57 00
2	"	60 00	120 00
1	"	69 00	69 00
1	"	75 00	75 00
1	"	77 10	77 10
1	"	78 00	78 00
1	"	101 24	101 24
1	"	102 00	102 00
1	"	108 00	108 00
1	"	110 00	110 00
1	"	111 00	111 00
35	<i>Amounts carried forward,</i>	\$1,766 99	\$221,841 49

35	<i>Amounts brought forward,</i>		\$1,766 99	\$221,841 49
1	Hotel,	114 60	114 60	
1	"	115 08	115 08	
1	"	114 80	114 80	
1	"	117 84	117 84	
2	"	120 00	240 00	
1	"	135 00	135 00	
2	"	138 00	276 00	
1	"	143 00	143 00	
1	"	153 70	153 70	
1	"	194 70	194 70	
1	"	232 41	232 41	
1	"	240 00	240 00	
1	"	267 00	267 00	
1	"	278 00	278 00	
1	"	289 00	289 00	
1	"	354 00	354 00	
1	"	400 00	400 00	
1	"	408 00	408 00	
1	"	435 00	435 00	
1	"	553 00	553 00	
1	"	662 00	662 00	
1	"	790 00	790 00	
1	"		14 50	
<hr/> 60				8,294 62
9	Restaurants and Sa-			
	loons,	6 00	54 00	
1	"	8 00	8 00	
231	"	9 00	2,079 00	
6	"	10 00	60 00	
2	"	11 50	23 00	
51	"	12 00	612 00	
2	"	13 00	26 00	
21	"	15 00	315 00	
2	"	17 00	34 00	
325	<i>Amounts carried forward,</i>		\$3,211 00	\$230,136 11

325	<i>Amounts brought forward,</i>		\$3,211 00	\$230,136 11
4	Restaur'ts & Saloons,	18 00	72 00	
1	"	" 20 00	20 00	
2	"	" 22 50	45 00	
1	"	" 23 00	23 00	
1	"	" 24 00	24 00	
4	"	" 25 00	100 00	
1	"	" 30 00	30 00	
1	"	" 35 00	35 00	
1	"	" 37 50	37 50	
1	"	" 40 00	40 00	
2	"	"	341 95	
<hr/> 344				3,979 45
1	Club House,	15 00	15 00	
2	" "	50 00	100 00	
<hr/> 3				115 00
2	Bathing Houses,	25 00	50 00	
2	"	" 30 00	60 00	
1	"	" 40 00	40 00	
2	"	" 50 00	100 00	
1	"	" 55 00	55 00	
1	"	" 135 00	135 00	
<hr/> 9				440 00
340	Stables,	5 00	1,700 00	
25	"	6 00	150 00	
40	"	6 25	250 00	
26	"	7 50	195 00	
16	"	8 00	128 00	
1	"	8 50	8 50	
11	"	8 75	96 25	
1	"	9 75	9 75	
24	"	10 00	240 00	
<hr/> 484			\$2,777 50	\$234,670 56

484	<i>Amounts brought forward,</i>		\$2,777 50	\$234,670 56
1	Stable,	10 75	10 75	
18	"	11 25	202 50	
6	"	12 00	72 00	
23	"	12 50	287 50	
1	"	13 25	13 25	
4	"	13 75	55 00	
2	"	14 00	28 00	
8	"	15 00	120 00	
1	"	16 00	16 00	
5	"	16 25	81 25	
3	"	16 50	49 50	
2	"	17 50	35 00	
5	"	18 00	90 00	
1	"	18 50	18 50	
5	"	18 75	93 75	
12	"	20 00	240 00	
1	"	20 75	20 75	
1	"	21 25	21 25	
2	"	22 50	45 00	
2	"	23 75	47 50	
5	"	24 00	120 00	
3	"	25 00	75 00	
1	"	27 50	27 50	
6	"	30 00	180 00	
1	"	31 25	31 25	
2	"	32 00	64 00	
1	"	33 00	33 00	
3	"	34 00	102 00	
3	"	36 00	108 00	
1	"	39 00	39 00	
6	"	40 00	240 00	
1	"	44 00	44 00	
1	"	46 50	46 50	
1	"	48 00	48 00	
622	<i>Amounts carried forward,</i>		\$5,483 25	\$234,670 56

622	<i>Amounts brought forward,</i>		\$5,483 25	\$234,670 56
3	Stables,	50 00	150 00	
1	"	52 00	52 00	
1	"	54 00	54 00	
2	"	56 00	112 00	
5	"	60 00	300 00	
1	"	64 50	64 50	
1	"	66 00	66 00	
3	"	70 00	210 00	
2	"	75 00	150 00	
1	"	80 00	80 00	
1	"	81 00	81 00	
4	"	90 00	360 00	
1	"	100 00	100 00	
1	"	101 25	101 25	
1	"	103 00	103 00	
2	"	120 00	240 00	
1	"	140 00	140 00	
1	"	148 00	148 00	
1	"	160 00	160 00	
1	"	408 00	408 00	
46	"		141 94	
<hr/>				
702				8,704 94
1	Shop and Engine,	10 50	10 50	
2	" "	12 00	24 00	
6	" "	15 00	90 00	
1	" "	16 56	16 56	
1	" "	18 00	18 00	
1	" "	18 16	18 16	
1	" "	18 42	18 42	
1	" "	18 49	18 49	
1	" "	19 00	19 00	
1	" "	20 88	20 88	
1	" "	24 00	24 00	
<hr/>				
17	<i>Amounts carried forward,</i>		\$278 01	\$243,375 50

17	<i>Amounts brought forward,</i>		\$278 01	\$243,375 50
1	Shop and Engine,	24 36	24 36	
1	"	"	25 00	25 00
1	"	"	26 18	26 18
1	"	"	33 62	33 62
1	"	"	33 90	33 90
1	"	"	34 74	34 74
1	"	"	36 00	36 00
1	"	"	38 34	38 34
1	"	"	38 70	38 70
1	"	"	42 42	42 42
1	"	"	45 00	45 00
1	"	"	45 42	45 42
1	"	"	53 20	53 20
1	"	"	54 62	54 62
1	"	"	58 20	58 20
1	"	"	63 12	63 12
1	"	"	63 50	63 50
1	"	"	66 66	66 66
1	"	"	66 78	66 78
1	"	"	68 16	68 16
1	"	"	69 00	69 00
1	"	"	69 06	69 06
1	"	"	70 92	70 92
1	"	"	93 39	93 39
1	"	"	95 36	95 36
1	"	"	96 02	96 02
1	"	"	97 86	97 86
1	"	"	98 04	98 04
1	"	"	100 78	100 78
1	"	"	102 00	102 00
1	"	"	102 96	102 96
1	"	"	103 50	103 50
1	"	"	108 90	108 90
<hr/>			<hr/>	
50	<i>Amounts carried forward,</i>		\$2,403 72	\$243,375 50

50	<i>Amounts brought forward,</i>		\$2,403 72	\$243,375 50
1	Shop and Engine,	125 00	125 00	
1	" "	126 96	126 96	
1	" "	136 02	136 02	
1	" "	140 33	140 33	
1	" "	145 20	145 20	
1	" "	149 06	149 06	
1	" "	150 72	150 72	
1	" "	158 88	158 88	
1	" "	163 38	163 38	
1	" "	170 16	170 16	
1	" "	176 40	176 40	
1	" "	180 24	180 24	
1	" "	186 84	186 84	
1	" "	188 04	188 04	
1	" "	204 00	204 00	
1	" "	256 12	256 12	
1	" "	279 24	279 24	
1	" "	353 75	353 75	
1	" "	472 08	472 08	
<hr/> 69				6,166 14
1	Foundry and Engine,	20 00	20 00	
1	" "	33 20	33 20	
1	" "	59 52	59 52	
1	" "	64 29	64 29	
1	" "	115 44	115 44	
1	" "	123 20	123 20	
1	" "	136 12	136 12	
<hr/> 7				551 77
1	Printing and Engine,	20 02	20 02	
1	" "	27 10	27 10	
1	" "	29 12	29 12	
1	" "	29 96	29 96	
<hr/> 4				
	<i>Amounts carried forward,</i>		\$106 20	\$250,093 41

4	<i>Amounts brought forward,</i>		\$106 20	\$250,093 41
1	Printing and Engine,	34 28	34 28	
1	"	" 44 50	44 50	
1	"	" 45 18	45 18	
1	"	" 93 20	93 20	
1	"	" 142 98	142 98	
1	"	" 163 96	163 96	
<hr/>				
10				630 30
<hr/>				
1	Ship Yard and Engine,	40 77	40 77	
1	"	" 159 83	159 83	
<hr/>				
2				200 60
<hr/>				
1	Factory and Engine,	17 96	17 96	
1	"	" 19 06	19 06	
1	"	" 25 56	25 56	
1	"	" 28 14	28 14	
1	"	" 32 78	32 78	
1	"	" 36 08	36 08	
1	"	" 63 16	63 16	
1	"	" 64 80	64 80	
1	"	" 69 12	69 12	
1	"	" 78 42	78 42	
1	"	" 81 05	81 05	
1	"	" 84 24	84 24	
1	"	" 88 53	88 53	
1	"	" 102 30	102 30	
1	"	" 109 92	109 92	
1	"	" 110 50	110 50	
1	"	" 114 23	114 23	
1	"	" 116 80	116 80	
1	"	" 118 68	118 68	
1	"	" 123 84	123 84	
1	"	" 147 22	147 22	
1	"	" 200 28	200 28	
<hr/>				
22	<i>Amounts carried forward,</i>		\$1,832 67	\$250,924 31

22	<i>Amounts brought forward,</i>		\$1,832 67	\$250,924 31
1	Factory and Engine,	204 80	204 80	
1	" "	360 64	360 64	
1	" "	446 48	446 48	
1	" "	534 28	534 28	
26				3,378 87
2	Factories,	10 00	20 00	
5	"	12 00	60 00	
1	"	14 00	14 00	
6	"	15 00	90 00	
1	"	20 00	20 00	
1	"	21 00	21 00	
1	"	24 00	24 00	
1	"	27 00	27 00	
1	"	30 00	30 00	
1	"	36 00	36 00	
1	"	41 40	41 40	
1	"	43 02	43 02	
1	"	99 45	99 45	
1	"	118 96	118 96	
1	"	156 80	156 80	
1	"	170 56	170 56	
26				972 19
1	Gas Light Co.,	66 24	66 24	
1	" " "	94 00	94 00	
1	" " "	481 20	481 20	
3				641 44
1	Sugar Refinery,	2,562 51	2,562 51	
1	" "	3,477 54	3,477 54	
2				6,040 05
1	Mill & Engine,	17 20	17 20	
1	" "	84 12	84 12	
2	<i>Amounts carried forward,</i>		\$101 32	\$261,956 86

2	<i>Amounts brought forward,</i>		\$101 32	\$261,956 86
1	Mill and Engine,	90 64	90 64	
1	" "	95 99	95 99	
1	" "	132 00	132 00	
1	" "	133 07	133 07	
1	" "	148 82	148 82	
1	" "	409 67	409 67	
1	" "	761 70	761 70	
1	" "	1,850 43	1,850 43	
1	" "	1,904 82	1,904 82	
11				5,628 46
1	Engine,	10 00	10 00	
7	"	12 00	84 00	
1	"	13 14	13 14	
2	"	15 00	30 00	
1	"	18 09	18 09	
1	"	33 84	33 84	
1	"	39 78	39 78	
1	"	44 40	44 40	
1	"	48 00	48 00	
1	"	126 66	126 66	
1	"	136 32	136 32	
18				584 23
13	Printing Offices,	6 00	78 00	
10	" "	9 00	90 00	
1	" "	10 00	10 00	
4	" "	12 00	48 00	
3	" "	13 00	39 00	
2	" "	17 00	34 00	
1	" "	18 00	18 00	
2	" "	21 00	42 00	
1	" "	28 00	28 00	
1	" "	29 00	29 00	
1	" "	20 83	20 83	
39				436 83
<i>Amount carried forward,</i>				\$268,606 38

<i>Amount brought forward,</i>		\$268,606 38
1 Distillery,	65 10	\$65 10
1 "	73 35	73 35
1 "	147 40	147 40
1 "	161 50	161 50
1 "	301 04	301 04
1 "	410 40	410 40
1 "	451 44	451 44
1 "	528 72	528 72
<hr/> 8		<hr/> 2,138 95
1 Brewery,	9 00	9 00
3 "	15 00	45 00
1 "	18 00	18 00
1 "	20 00	20 00
2 "	25 00	50 00
1 "	66 95	66 95
1 "	75 00	75 00
1 "	227 84	227 84
<hr/> 11		<hr/> 511 79
1 Bacon Works,	15 00	15 00
1 " "	25 00	25 00
<hr/> 2		<hr/> 40 00
2 Bleacheries,	9 00	18 00
2 "	10 00	20 00
1 "	12 00	12 00
1 "		4 50
1 Laundry,	25 00	25 00
1 Pottery,	30 00	30 00
<hr/> 8		<hr/> 109 50
27 Bakeries,	6 00	162 00
8 "	7 00	56 00
10 "	8 00	80 00
<hr/> 45	<i>Amounts carried forward,</i>	<hr/> \$298 00
		\$271,406 62

45	<i>Amounts brought forward,</i>		\$298 00	\$271,406 62
4	Bakeries,	9 00	36 00	
3	"	10 00	30 00	
1	"	11 00	11 00	
2	"	12 00	24 00	
1	"		4 00	
56				403 00
1	Bakery and Engine,	20 00	20 00	
1	" "	53 64	53 64	
1	" "	64 33	64 33	
3				137 97
1	Building and Engine,	22 02	22 02	
1	" "	74 96	74 96	
1	" "	95 78	95 78	
1	" "	144 06	144 06	
1	" "	158 08	158 08	
1	" "	181 44	181 44	
1	" "	190 20	190 20	
1	" "	205 56	205 56	
8				1,072 10
4	Ship Yards,	15 00	60 00	
4	" "		38 75	
2	Dry Docks,	15 00	30 00	
1	" "	35 00	35 00	
1	" "	44 84	44 84	
12				208 59
689	Hose,	3 00	2,067 00	
5	"	5 00	25 00	
4	"	10 00	40 00	
698				2,132 00
10	Fountains,	3 00	30 00	
10	"	5 00	50 00	
5	"	6 00	30 00	
25	<i>Amounts carried forward,</i>		\$110 00	\$275,360 28

25	<i>Amounts brought forward,</i>	\$110 00	\$275,360 28
1	Fountains,	8 00	8 00
3	"	10 00	30 00
2	"	15 00	30 00
31			178 00
1	Packing House,	9 00	9 00
1	" "	12 00	12 00
2	" "	15 00	30 00
1	" "	25 00	25 00
1	" "	13 75	
6			89 75
1	Railroad Co.	75 00	75 00
1	" "	205 00	205 00
1	" "	555 00	555 00
1	" "	804 18	804 18
1	" "	854 82	854 82
1	" "	1,006 56	1,006 56
1	" "	1,536 24	1,536 24
1	" "	2,125 52	2,125 52
8			7,162 32
1	Chelsea Ferry Co.,	948 56	948 56
1	E. Boston " "	691 94	691 94
1	People's " "	326 40	326 40
3			1,966 90
1	Cunard St'mship Co.	700 00	700 00
1	Steamboat,	9 04	9 04
1	"	10 00	10 00
1	"	15 00	15 00
1	"	32 88	32 88
1	"	35 00	35 00
1	"	38 72	38 72
1	"	43 56	43 56
1	"	44 84	44 84
9	<i>Amounts carried forward,</i>	\$929 04	\$284,757 25

9	<i>Amounts brought forward,</i>		\$929 04	\$284,757 25
1	Steamboat,	50 00	50 00	
1	"	53 20	53 20	
1	"	55 61	55 61	
1	"	57 12	57 12	
1	"	63 00	63 00	
1	"	74 62	74 62	
1	"	76 69	76 69	
1	"	78 25	78 25	
1	"	96 96	96 96	
1	"	125 06	125 06	
1	"	127 75	127 75	
1	"	130 52	130 52	
1	"	131 04	131 04	
1	"	132 21	132 21	
1	"	149 92	149 92	
1	"	150 00	150 00	
1	"	157 80	157 80	
1	"	179 40	179 40	
1	"	206 58	206 58	
1	"	231 00	231 00	
1	"	325 44	325 44	
2	"	629 09	1,258 18	
<hr/>				
32				4,839 39
<hr/>				
1	Latin School,	16 00	16 00	
1	English High School,	16 00	16 00	
1	Normal "	16 00	16 00	
18	Grammar "	16 00	288 00	
213	Primary "	6 00	1,278 00	
13	Engine Houses,	16 00	208 00	
6	Hose Carriage Houses,	16 00	96 00	
3	Hook & Ladder "	16 00	48 00	
3	Police Station "	15 00	45 00	
3	Police Stations,	20 00	60 00	
<hr/>				
262	<i>Amounts carried forward,</i>		\$2,071 00	\$289,596 64

262	<i>Amounts brought forward,</i>	\$2,071 00	\$289,596 64
1	Police Station,	25 00	25 00
1	“ “	80 00	80 00
1	City Stable (Harrison Avenue,)	75 00	75 00
1	City Stable (Commercial Street,)	33 75	33 75
5	Fire Alarm Motors,	10 00	50 00
1	“ “ “	15 00	15 00
1	Court House,	95 00	95 00
1	City Hall,	50 00	50 00
1	Faneuil Hall,	40 00	40 00
1	City Building,	37 50	37 50
1	Probate Office,	10 00	10 00
1	Office (at City Scales,)	9 00	9 00
4	“ (at Niles' Block,)	27 00	27 00
1	Dead House,	10 00	10 00
1	Public Library,	50 00	50 00
1	House of Correction,	462 00	462 00
1	Lunatic Hospital,	225 00	225 00
1	House of Reformation,	50 00	50 00
1	Faneuil Hall Market, (for Urinals, &c.)	70 00	70 00
1	Street Sprinkling,	400 00	400 00
1	Offal Station,	150 00	150 00
1	Common Sewer, (for making mortar, &c.)	75 00	75 00
1	Store (Faneuil Hall,)	6 00	6 00
1	House (Vine Street,)	7 00	7 00
1	Steamer (Henry Morrison,)	192 56	192 56
1	Jail for Suffolk Co.,	243 00	243 00
295	<i>Amounts carried forward,</i>	\$4,558 81	\$289,596 64

<i>Amounts brought forward,</i>	\$4,558 81	\$289,596 64
Mass. State Prison, 639 66	<u>639 66</u>	
		5,198 47
Mill Dam Co., 300 00	300 00	
Contractors for sup- plying Shipping, 3,832 93	3,832 93	
Filling Gasometers, 462 49	462 49	
Sprinkling Streets, 22 00	22 00	
Building Purposes, 1,727 95	<u>1,727 95</u>	
		6,345 37
		<u>\$301,140 48</u>

STATEMENT SHOWING THE NUMBER AND KINDS OF WATER FIX-
TURES, CONTAINED WITHIN THE PREMISES OF WATER TAKERS,
IN THE CITY OF BOSTON, IN 1857 AND 1858.

1857	1858	
4,434	4,326	Taps. These have no connection with any drain or sewer.
25,207	26,631	Sinks.
6,573	7,729	Wash-hand Basins.
2,941	3,334	Bathing Tubs. Most of these have shower baths attached.
2,765	3,327	Pan Water Closets.
3,215	3,845	Hopper Water Closets.
	173	Self-acting Closets.
573	654	Urinals.
1,566	2,015	Wash Tubs. These are permanently attached to the buildings.
20	12	Shower Baths. In houses where there is no tub.
9	9	Rams.
585	612	Private Hydrants.
	77	Slop Hoppers.
47,888	52,744	

Respectfully submitted.

WILLIAM F. DAVIS,

Water Registrar.







PUBLIC LIBRARY
OF THE
CITY OF BOSTON.

ABBREVIATED REGULATIONS.

One volume can be taken at a time from the Lower Hall, and one from the Bates Hall. Books can be kept out 14 days.

A fine of 2 cents for each volume will be incurred for each day a book is detained more than 14 days.

Any book detained more than a week beyond the time limited, will be sent for at the expense of the delinquent.

No book is to be lent out of the household of the borrower.

The Library hours for the delivery and return of books are from 10 o'clock, A. M., to 8 o'clock, P. M., in the Lower Hall; and from 10 o'clock, A. M., until one half hour before sunset in the Bates Hall.

Every book must, under penalty of one dollar, be returned to the Library at such time in August as shall be publicly announced.

The card must be presented whenever a book is returned. For renewing a book the card must be presented, together with the book, or with the shelf-numbers of the book.

